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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/494,534	01/31/2000	Kimitaka Murashita	1080.1078/JDH	3593

21171 7590 09/24/2002

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EXAMINER

FOULADI SEMNANI, FARANAK

ART UNIT PAPER NUMBER

2672

DATE MAILED: 09/24/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/494,534

Applicant(s)

MURASHITA ET AL.

Examiner

Faranak Fouladi

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 and 18-26 is/are rejected.
- 7) ☒ Claim(s) 17 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. This action is responsive to communications: application, filed on 01/31/2000; and Amendment A, filed on 07/01/2002.
2. Claims 1-26 are pending in the case, with claims 1, 14, 15, 16, 18, 20-26 being independent.
3. New claims 23-26 have been added.
4. The present title of the application is "Display Characteristics Recognition Apparatus, Display Characteristics Recognition Program Storage Medium, Computer System, Display Characteristics Adjusting Apparatus and Display Characteristic Adjusting Program Storage Medium" (as originally filed).

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-4, 6-8, 12-15, 18, 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over McLaughlin et al., [US 5739809], patented on 04/14/1998.

As per independent claim 1, "a display characteristics recognition apparatus comprising: a signal output unit connected to a display unit for displaying an image according to a signal entered (Mclaughlin et al. discloses a signal output unit and a display unit in col. 4 lines 58-67), said display unit displaying the image with a color according to both the signal and display characteristics of said display unit (Mclaughlin et al. discloses a display unit in col. 5 lines 5-10, lines 14-29), said signal output unit outputting a color chart signal representative of a monochrome figure to said display unit; a color name input unit entering a name of a color displayed on said display unit in accordance with the color chart signal outputted from said signal output unit (Mclaughlin et al. discloses in Fig. 5, Fig. 6, Fig. 11); a display characteristic identification unit determining display characteristics of said display unit in accordance with the color chart signal outputted from said signal output unit and the name of the color entered through said color name input unit (Mclaughlin et al. discloses in col. 5 lines 33-48).

Mclaughlin et al. do not disclose a color name input unit entering a name of a color displayed on the display but he discloses in fig. 11 that colors (red, green, and blue level) can be changed by the user to desired level (user can see the result of the color change he/she made to the display (col. 15 lines 12-36)). It would have been obvious to a person with ordinary skill in the art to add a color name input unit entering a name of a color displayed on display to Mclaughlin device (instead of entering different numerical values in box 84A of fig. 6) to make the color selection easier for the user since using names for colors is easier to remember than using numbers for colors.

With respect to dependent claim 2, "...wherein said display characteristics identification unit determines, as the display characteristics, a relationship between a signal representative of a white image and a color of an image displayed on said display unit in accordance with the signal." McLaughlin et al. discloses in col. 5 lines 33-48; col. 10 lines 50-55.

With respect to dependent claim 3, "...wherein said display unit is selectively set up to anyone of a plurality of display characteristics, and said display characteristics identification unit determines display characteristics to which said display unit is now set up." McLaughlin et al. discloses in col. 5 lines 33-48; and col. 7 lines 1-5, 34-39.

With respect to dependent claim 4, "...wherein said display unit is a display in which an image is displayed through emission of light, and said display characteristics identification unit determines, as the display characteristics, luminance of said display." McLaughlin et al. discloses in col. 15 lines 37-43.

With respect to dependent claim 6, "...wherein said color name input unit enters a name of a color selected from among a plurality of colors perceived as mutually different colors in name." McLaughlin et al. discloses a virtual control that allows a user to alter one or two primary color in col. 10 lines 56-64. Although McLaughlin et al. do not disclose

entering a name of a color selected from among plurality of colors but it would have been obvious to a person with ordinary skill in the art to add a color name input unit entering a name of a color selected from among a plurality of colors to McLaughlin virtual control to simplifying the process of changing the colors.

With respect to dependent claim 7, "...wherein said signal output unit outputs a plurality of color chart signals each representative of a monochrome figure to said display unit; said color name input unit enters a name of a color of each of a plurality of monochrome figures; and said display characteristics identification unit determines display characteristics of said display unit in accordance with the plurality of color chart signals outputted from said signal output unit and the plurality of names of the color entered through said color name input unit." McLaughlin et al. discloses in col. 14 lines 5-50.

With respect to dependent claim 8, "...wherein said signal output unit outputs one of the plurality of color chart signals, and thereafter outputs, of the plurality of color chart signals, a color chart signal according to the name entered through said color name input unit to said display unit." McLaughlin et al. discloses in col. 14 lines 5-50.

With respect to dependent claim 12, "...wherein said display characteristics recognition apparatus further comprises a profile producing unit for generating data representative of display characteristics determined by said display characteristics identification unit in a predetermined format to produce a profile representative of characteristics as to display

of an image by said display unit including the data.” Mclaughlin et al. discloses in col. 16 lines 6-10.

With respect to dependent claim 13, “...wherein said display characteristics recognition apparatus further comprises: a profile storage unit for storing various sorts of profiles each representative of characteristics as to display of an image by a display unit including data indicative of various display characteristics in a common format; and profile selection unit for selecting one profile from among the various sorts of profiles stored in said profile storage unit in accordance with the display characteristics determined by said display characteristics identification unit.” Mclaughlin et al. discloses in col. 16 lines 23-29, and lines 34-41.

With respect to independent claim 14, “a display characteristics recognition program storage medium storing a display characteristics recognition program comprising: a signal output unit outputting to a display unit ...; and color name input unit entering a name of a color displayed on said display unit ...; and a display characteristics identification unit for determining display characteristics of said display unit ...” Mclaughlin et al. discloses in col. 6 lines 6-9.

With respect to independent claim 15, “a computer system comprising: a display unit for displaying an image according to a signal entered...; a main frame unit for outputting to said display unit a color chart signal representative of a monochrome figure and color

name signals...; and an input unit for entering a color name selected from among said plurality of color names to said main frame unit in accordance with an operation, wherein said main frame unit determines display characteristics of said display unit in accordance with the color chart signal outputted toward said display unit and the color name entered through said input unit.” Mclaughlin et al. discloses in abstract line 1-28.

With respect to independent claim 18, “a computer system comprising:
a display unit for displaying an image according to a signal entered, said display unit displaying on a luminous display basis ...; a main frame unit for outputting to said display unit ...; and an input unit for selectively entering a monochrome figure displayed with a color of the specified color name of the plurality of monochrome figures displayed on said display unit, to said main frame unit in accordance with an operation, wherein said main frame unit determines luminance of said display unit in accordance with the color chart signal outputted toward said display unit and the monochrome figure entered through said input unit.” Mclaughlin et al. discloses in col. 15 lines 37-65.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mclaughlin et al. in view of reference Tanaka [US 5943036].

Regarding claim 9, McLaughlin et al. disclose the instant claimed invention except for outputting a signal to display unit, causing black to be displayed around the monochrome figure displayed on said display unit according to the color chart signal. Tanaka discloses the output means outputs to display unit a signal causing black to be displayed around the monochrome figure displayed on display unit according to the color chart [col. 6 lines 52-60 and Fig. 4 and 5]. It would have been obvious to a person with ordinary skill in the art to combine the Tanaka's black border signal with the signal output unit of McLaughlin et al. to enhance the McLaughlin et al. display unit to display a color on the black background because the black background has no color interference and this makes the color selection easier for the user.

Dependent claim 10 is also rejected in view of the above remarks.

As per independent claim 23, "a display characteristics recognition apparatus comprising: means for displaying an image on a display unit with a color determined by both an input signal and display characteristics of the display unit (McLaughlin et al. discloses a signal output unit and a display unit in col. 4 lines 58-67; and also discloses a display unit in col. 5 lines 5-10, lines 14-29), means for determining display characteristics of said display unit in accordance with the color chart signal the name of the color input (McLaughlin et al. discloses in col. 5 lines 33-48).

McLaughlin et al. do not disclose means for inputting a name of a color displayed in accordance with the color chart signal but he discloses in fig. 11 that colors (red, green,

and blue level) can be changed by the user to desired level (user can see the result of the color change he/she made to the display) (col. 15 lines 12-36). It would have been obvious to a person with ordinary skill in the art to add means for inputting a name of a color displayed to McLaughlin device (instead of entering different numerical values in box 84A of fig. 6) to make the color selection easier for the user since using names for colors is easier to remember than using numbers for colors.

Claim 24 recites method steps performed by the apparatus of claim 23; therefore they are similar in scope and rejected under the same rationale.

Claim 25 recites a computer-readable medium storage storing a program for executing the method of claim 24. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have implemented the method of claims 24 as computer executable instructions stored on a computer-readable medium so that the method of claim 24 can be ported to other computer systems.

Claim 26 recite apparatus for performing the method of claim 24; therefore they are similar in scope and rejected under the same rationale.

Claim Rejections - 35 USC § 112

9. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

10. Claims 5, 11, 16, 19-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claims 5, 20- 22, phrase “a color of an adjacent area as to colors adjacent to one another on a chromaticity diagram of a plurality of colors perceived as mutually different colors in name” does not clearly state that colors adjacent to one another actually belong to mutually different categorical areas.

Regarding claims 11 and 16, phrase “a series of colors in adjacent areas for two sorts of colors adjacent to one another on a chromaticity diagram are displayed” is unclear. It is not clear that these two sorts of colors adjacent to one another actually belong to mutually different categorical areas.

Regarding claim 19, phrase “persons of a predetermined ratio and up” is unclear.

Regarding claim 17 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments filed 07/01/02 have been fully considered but they are not persuasive.

12. Applicant argues on section III of Amendment A page 10 that the claims 5 and 20-22 are not required to state that "colors adjacent to one another actually belong to mutually different categorical areas" and further applicant argues that colors adjacent to one another may or may not belong to mutually different categorical areas.

Applicant has stated in specification page 24 line 23 through page 25 line 6 that "even if various sorts of colors, which are mutually different in CIEXYZ values and the like, are concerned, in the event that those colors belong to a certain categorical area on the chromaticity diagram, those colors are categorized and regarded as the same sort of color. In other words, even if colors, which are located mutually near on the chromaticity diagram, are concerned, in the event that those colors belong to mutually different categorical areas on the chromaticity diagram, those colors are regarded as the different sort of colors."

Claim 5 claims that "...color of an adjacent area as to colors adjacent to one another on a chromaticity diagram of a plurality of colors perceived as mutually different colors..."

Based on what was stated in the specification it is not clear that colors adjacent to one another actually belong to mutually different categorical areas, if they belong to a certain categorical area on the chromaticity diagram, those colors are categorized and regarded as the same sort of color and they wont perceived as mutually different colors as claimed in claim 5.

13. The same argument applies to claims 11 and 16.

14. Applicant has not amended claim 19 to overcome the rejection.

15. Applicant has argued in section IV page 11 line 10 – page 12 line 5 of amendment A that Mclaughlin does not allow a user to enter a name of a color displayed on a display unit in accordance with a color chart signal. It would have been obvious to a person with ordinary skill in the art to add a color name input unit entering a name of a color displayed on display instead of entering different numerical values in box 84A of fig. 6 of Mclaughlin to make the color selection easier for the user since using names for colors is easier to remember than using numbers for colors.

16. Applicant has argued in section IV page 12 line 06-25 of amendment A that Mclaughlin does not disclose a display characteristics identification unit determining display characteristics of said display unit in accordance with the color chart signal outputted from said signal output unit and the name of the color entered through said color name input unit. Mclaughlin et al. discloses in col. 5 lines 33-48 a colorimeter device that identifies the display characteristics.

17. (Regarding claim 2) Applicant has argued in section IV page 13 line 01-07 of amendment A that Mclaughlin discloses adjustment of characteristics and this is different than determining the display characteristics as a relationship between a signal representative of a white image and a color of an image displayed on said display unit in accordance with the signal. Mclaughlin discloses adjustment of display characteristics based on the relationship between a signal representative of a white image and a color of an image displayed on said display
in col. 10 line 50- col. 11 line 14.

18. (Regarding dependent claim 6) Applicant has argued in section IV page 13 line 08-15 of amendment A that McLaughlin does not disclose entering a name of a color selected from among a plurality of colors perceived as mutually different colors in name. McLaughlin et al. discloses a virtual control that allows a user to alter one or two primary color in col. 10 lines 56-64. Although McLaughlin et al. do not disclose entering a name of a color selected from among plurality of colors but it would have been obvious to a person with ordinary skill in the art to add a color name input unit entering a name of a color selected from among a plurality of colors to McLaughlin virtual control to simplifying the process of changing the colors.

19. (Regarding dependent claim 7) Applicant has argued in section IV page 13 line 16-29 of amendment A that McLaughlin does not disclose a plurality of color chart signals and further the user in McLaughlin does not enter a name of a color of each of a plurality of monochrome figures. McLaughlin discloses “processor 11 causes display device 16 to display a sequence of images on display screen 16A of device 16...” in col. 14 lines 8-12. An image can be a color chart and sequence of images can be interpreted as a plurality of color chart signals.

20. (Regarding dependent claim 8) Applicant has argued in section IV page 14 lines 1-5 of amendment A that McLaughlin does not disclose a plurality of color chart signals.

McLaughlin discloses “processor 11 causes display device 16 to display a sequence of images on display screen 16A of device 16...” in col. 14 lines 8-12. An image can be interpreted as a color chart and sequence of images can be interpreted as a plurality of color chart signals.

Conclusion

21. Any this communication or earlier communications from the examiner should inquiry concerning be directed to **Faranak Fouladi** whose telephone number is **703-305-3223**.

The examiner can normally be reached on Mon-Fri from 8:00-4:30.

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi** can be reach at **703-305-4713**.

23. **Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks


Washington, DC. 20231

Or faxed to: 703-872-9314 (for Technology Center 2600 only)

24. Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

25. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

Faranak Fouladi-Semnani
Patent Examiner
Art Unit 2672



MICHAEL RAZAVI
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600